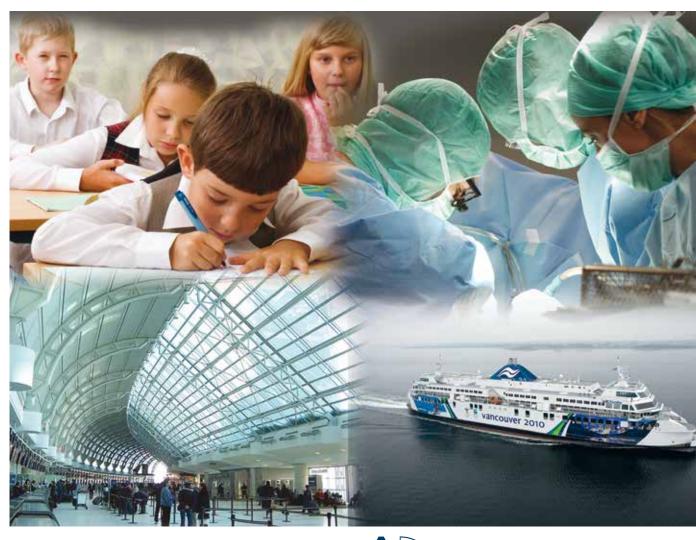




COMPANY PROFILE

CUSTOMIZED AIR HANDLING SYSTEMS

ENVIRONMENT AND HYGIENE-FRIENDLY SOLUTIONS







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THE EUROCLIMA COMPANY





Your best partner for air handling

Since 1963, Euroclima is a leader in customized air conditioning and ventilation systems. We develop, manufacture and commercialize high quality air handling products for all applications, from basic comfort to health care, process air and installations with highly efficient heat recovery systems.

Euroclima is a company with extensive international operations and 5 manufacturing facilities in Italy, Austria, India and UAE and more than $36.000~\text{m}^2$ of production and offices. We are specialized in the manufacturing and worldwide distribution of air handling units and fan coil units.

We try to exceed the expectations of our customers by innovation, quality and comprehensive service. Approximately 400 employees are at present employed. Euroclima has a well distributed network of sales and service all over Europe, Asia, Middle East and Northern Africa. Our partners in various countries assume a surface covering responsibility for marketing, local servicing and optimal assistance.

Success story

The secret of Euroclima's long-standing and continuous success lies in the efficient project-management and the distinctive customerorientation. We understand and address to our customer's needs and offer tailor-made solutions to optimize operating costs. This is achieved by:

- our professionalism and the commitment of all our employees
- our teamwork and the close relationships with our distributors, customers and suppliers
- our many years of experience and know-how in elaborating innovative solutions
- the quality, sustainability and reliability of our products

Our strengths

Outstanding quality management processes through ISO 9001:2015; customized solutions through unmatched flexibility; low energy consumption due to high-efficiency components and ideal unit selections; high reliability thanks to high quality components; innovation based on 50 years of experience; integration of the latest and best technologies; unique hygienic and clean concept solutions for an optimal indoor climate and a healthy and productive environment; guaranteed results due to certified products; design of products with the main focus on safety; products featuring quick installation and easy maintenance; customer service from the design stage through to spare-part supply; customized controls; plug and play solutions thanks to compact units with integrated refrigeration circuit; special solutions for particular projects such as ATEX requirements, data-centers, installations in the food industry or sound sensitive projects.

MANUFACTURING AND DISTRIBUTION



Euroclima Bruneck (IT) ¹



Euroclima Sillian (AT) ²



Euroclima Indien (IN) ³



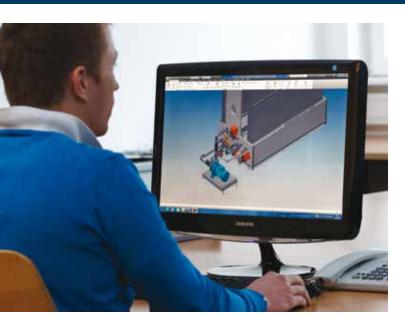
Bini Clima Rovereto (IT) 4



Euroclima Middle East ⁵



HIGH TECH MANUFACTURING





Quality is our absolute priority, as a result we have **first class suppliers**, high-quality production methods and toughest quality criteria. Detailed discussions with our customers contribute to a clear understanding of their needs and a thorough project elaboration. **Highly qualified and conscientious personnel** combined with the **latest manufacturing technologies** enable us to provide customized products with **highest quality and reliability**, at the right price and with shortest delivery times.



CUSTOMER SERVICES



Technical support

Our teams and partners are available to **help you on technical or commercial matters**, provide you information about deliveries, offers, orders, warranty or spare parts supply. Don't hesitate to call us.



Design assistance

Thanks to our experience, our expert teams and our powerful design software, Euroclima can help you find the best technical and economical solution to complete successfully your projects.



Factory acceptance tests and on site commissioning

To demonstrate the quality and the performances of our products, we are able to **perform witness tests either in our facilities** or on job site. Volumetric tests (airflow/pressure), acoustic, vibrations, air leakage, casing deflection, filter bypass leakage, casing thermal performances can be organized upon request. When required, Euroclima **service teams provide on site assembly assistance and unit commissioning**.



Service & spare parts supply

Euroclima ensure after sales service, maintenance and supply of spare parts for the entire range of our equipment's.

CERTIFICATIONS

















Higher expectations

In addition to the quality management certification in place in all of our facilities, Euroclima has a policy to continuously improve its administrative and manufacturing processes to provide products with top quality and reliability for the satisfaction of our customers. Because every project is unique, every country has its own laws and regulations, every building it's own constraints, Euroclima participate to a number of international certification programs, related to quality, performances, hygiene or energy consumption.

In term of performances, the more complete certification program is definitively the Eurovent certifications which certify the performances of the components, as part of the units, but also the mechanical characteristics of the housing, as described in the next page. Components certified according to other programs can be offered, such as AHRI certified coils.

For medical applications, where the air cleanliness in the critical zones is essential, Euroclima has developed innovative and unique options to comply to highly demanding regulations such as the VDI 6022, the DIN 1946-4, the SWKI 99-3, the ONORM H 6020 or the HTM 03-01 NHS. Also, units to be installed in hazardous areas, can certified according to the ATEX directive 2014/34/EU.



CERTIFIED PERFORMANCES

The purpose of Eurovent certification program is to create a common set of criteria for the rating of products. Through specification of certified products, the engineer's tasks become easier, since there is no need to carry out detailed comparison and performance qualification testing. Consultants, contractors and end users can select products with the assurance that the catalogue data are accurate.

When a manufacturer participates in a certification program, he has to present its list of models or model ranges together with their performance data. The files are evaluated by Eurovent certification and a predefined number of units are selected for testing by independent laboratories. Models are subject to regular random testing to verify compliance with the catalogue data.

The selection software certified by Eurovent certification must calculate and indicate the Eurovent energy classes on the data sheets.



Check ongoing validity of certificate: eurovent-certification.con

		Reference table for energy efficiency calculations			
	Class	All units	Units for full or partial outdoor air at design winter temperature ≤ 9° C		
	ŏ	Velocity	Heat recovery system		Fan Efficiency Grade
		V _{class} [m/s]	η _{class} [%]	Δp _{class} [Pa]	NG _{ref-class} [-]
	A+/A+ /A+↑	1,4	83	250	64
	A/A /A↑	1,6	78	230	62 (ErP Fan)
	B/B /B↑	1,8	73	210	60
	C/C /C↑	2,0	68	190	57
	D/D /D	2,2	63	170	52 (ErP Vent)
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Performances certified by Eurovent

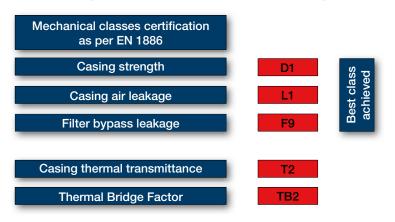
Rating performances, as per EN 13053:

- Air flow available static pressure
- Power input
- Octave band in-duct sound power level
- Radiated sound power level
- · Heating capacity
- · Cooling capacity
- Heat recovery
- Water pressure loss

Mechanical characteristics, as per EN 1886:

- Casing strength
- · Casing air leakage
- Filter bypass leakage
- Casing thermal transmittance
- Thermal bridging factor
- Casing acoustical insulation

Certified performances of Euroclima products



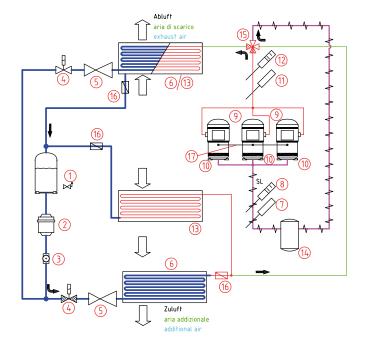


Euroclima participates in the EPC programme for Air Handling Units (AHU) and Fan Coil Units (FCU); Check ongoing validity of certificate

EUROCLIMA REFRIGERATION

Refrigeration systems

A compression refrigeration system of Euroclima is offered complete, with all necessary components and corresponding control. For smaller units that are executed as a single block, the DX circuit will be completely evacuated, subjected to a pressure test and then filled with refrigerant. For devices in sections, this must be carried out at the site. To provide a seamless service for customers, Euroclima maintains a service team with refrigeration technicians, which possess all necessary certificates and training certificates to meet legal requirements for the operation of compression refrigeration plants.





- Much faster installation and commissioning
- Much lower space requirements
- Designed and factory tested
- High built quality and reliability
- 🐿 Single source of responsibility and easier maintenance



Integrated refrigeration from Euroclima

CONTROLS & INTEGRATED REFRIGERATION

Euroclima controls

The Euroclima air handling unit range is available with factory mounted controls. It includes the complete control panel, with disconnect switch contactors, overload protection, variable frequency invertors and programmable controller as well as the control peripherals such as temperature and humidity sensors, pressure switches, damper actuators, valves. The units are tested and pre commissioned at the factory, which result in high reliability, time saving and trouble free commissioning for our customers.







Controllers are supplied with programmed software

Euroclima integrated refrigeration

The Euroclima ETA and Cleanine series are available with built in cooling or reversible air cooled systems, installed in both exhaust and fresh air streams. The refrigeration systems can be customized with optimized components to reach the highest EERs & COP possible for your specific needs. The integrated air condensers are installed in the exhaust air streams (in cooling mode), which provide very high efficiency and minimized footprint as external condenser are not needed anymore. High quality scroll compressors, mounted on isolators make the systems highly reliable, with minimum maintenance. Protection devices such as low and high pressure switches, refrigerant dryers, and expansion tanks guaranty a safe and long lasting operation. The complete systems are controlled with dedicated cooling controllers and thermostatic expansion valves. Our refrigeration systems use the environment friendly R407C refrigerant.

Factory designed, fitted & tested

🐿 Intelligent controls strategies

Easy and fast installation

Environment friendly

Single source of responsibility



ENGERGY SAVING SOLUTIONS

Euroclima recovery systems

The ZHK units are designed and manufactured with green environment in mind. The casing and 90% of the components used can be recycled.

Our advanced selection software allow us to optimize each unit to reach the best solution for each of your project, with the highest efficiency, the optimized dimensional constraints at the right price.

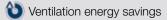
Euroclima use and promote the newest technologies to minimize the energy consumption of the complete air conditioning system.













Cooling production energy savings

EcoDesign compliance

Minimized carbon footprint and life cycle costs



High efficiency run around coils



Integrated refrigeration



Frequency invertors



Direct driven plug fans and EC motors



Adiabatic cooling



Thermal wheels



Plate heat exchangers



Accumulator

MEDICAL AND PHARMACEUTICAL SOLUTIONS

Clean concept as standard

Beside the environmental concern, Euroclima's focus is to insure comfortable and healthy indoor climate. As standard, our products provide the basic characteristics to provide the right Indoor Air Quality: Highest casing air tightness, smooth internal walls, minimized dust traps, anti corrosion protections, in compliance to the EN 13053 standard. Lots of options are also available to meet your own requirements: filters from G2 to H14, inclined floor in all sections, anti-bacteriological sealants, all components easily removable, 3 slope inclined drain pans easily removable, wash down sections...

Anti-microbial coating (AMC)

The Euroclima anti-microbial coating (AMC) is a surface treatment applied on the inner skin of the unit casing. This coating includes natural ingredients and silver ions having the propriety to stop the microbes and bacteria growth, thus to reduce the risks of contamination and infections. This coating, having active effects for more than 10 years has been tested by independent laboratories.





Smooth internal walls



Easy-to-clean design

High filtration efficiency

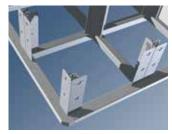
🐿 VDI 6022 & DIN 1946-4 compliant

Smooth internal walls for easier cleaning

Health care solutions

Euroclima has developed unique hygienic options for demanding applications such as operating theatres or pharmaceutical clean rooms:

- The Euroclima Anti-Microbial Coating (AMC) to avoid microbial growth in the air stream
- The new air-tight dampers, class 4 according to EN 1751
- Leak-proof Euroclima HEPA filter frame systems filter safe
- UVC systems to treat air or water against contamination



Leak-proof HEPA filter frames FILTER SAFE



Wide choice of filters from G2 to H14



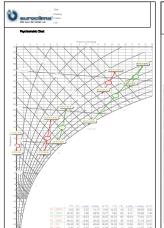
New Euroclima damper class 4 - EN 1751

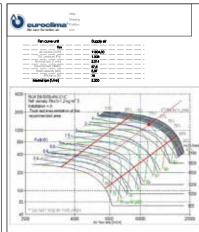
DESIGN & SELECTION SOFTWARE

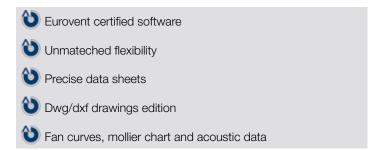
Customized units designer

AirCalc++, our selection program is one of the most sophisticated design software for Air handling Units available on the market. It is the result of years of experience in designing and optimizing customized air handling units. The performances provided by this software are certified by Eurovent certification. It allows to select virtually all possible configurations, components or options to reach your exact project constraints. Detailed data sheets, in duct and radiated sound levels, Autocad format drawings, product specifications, Psychometric charts, fan curves, SFPs and energy classes can be viewed and printed from our software.

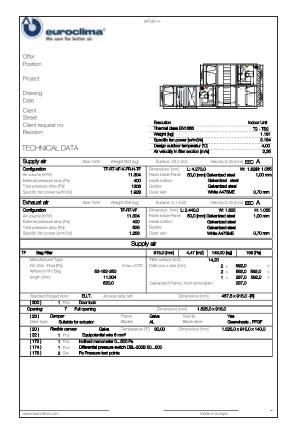












ZHK - CUSTOMIZED SOLUTIONS

Casing constructions

The innovative casing construction of the ZHK makes the units extremely flexible to cover a wide range of applications from comfort to process applications.

The standard range offer the highest flexibility available on the market place:

- Any possible unit configuration
- Any type of components available on the market
- Anti corrosion protections, including galvanized steel, 130 mµ PVC coating, epoxy painting, peraluman, stainless steel 304 or 316L
- Large choice of options and accessories
- 100 % hygiene and attenuation material
- Factory mounted controls and refrigeration





- Unlimited flexibility

 High built quality & reliability
- Hygienic design
- U High efficiency
- Certified performances

Casing characteristics

- 50mm thick double skin panels
- Standard casing: metal sheet 0,7/1,0 mm
- Industrial casing: metal sheet 1,0/1,5 mm
- Incombustible insulation, glass fibber or rock wool, from 20 to 150 kg/m³
- Fire class: A1/A2 as per EN 13-501-1 A1 as per DIN 4102
- Upper profiles in epoxy painted aluminium
- Integrated base frame from 80 to 200 mm

Eurovent certified classes, as per EN 1886:

- D1/L1/F9/T3/TB2 (ZHK Standard)
- D1/L1/F9/T3/TB2 (ZHK Industry)
- D1/L1/F9/T2/TB2 (ZHK T-TWO) with thermal break



ZHK - CUSTOMIZED SOLUTIONS

ZHK - Industry

The incredible flexibility of the ZHK range make it the best choice for industrial and process projects: car industry, aerospace halls, textile factories, power stations, research centers... All these kinds of applications require sometimes higher features than what is typically needed for comfort and commercial applications: Very large air volumes, very accurate temperature and/or humidify control, very high external static pressure, extremely aggressive environment, filtration of special compounds...

The ZHK units can be manufactured in accordance to the ATEX regulations. The integrated components such as fans, filters, belts, motors, and all electrical components shall be ATEX compliant.







T3 (inside/outside)

ATEX compliant solutions

Areas with danger of explosion have to be classified in zones according to the frequency and period of time when occurrence of explosive atmospheres (gas/air, vapor/air mixtures and/or mixtures of dust/air) occurs. This is defined in directive 2014/34 EU. The manufacturer shall declare the conformity in accordance with the ATEX regulation.

ATEX classification is split into two groups:

Group I: Underground mining. Not applicable for AHU Group II: Over ground installations, categories 1, 2 and 3.

Euroclima can provide ATEX compliant units which are approved by TUV Süddeutschland.



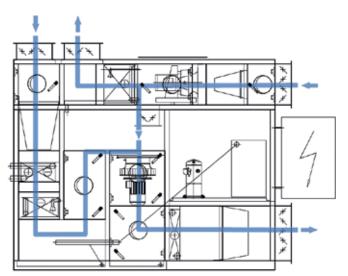


CLEANLINE - MEDICAL SOLUTIONS

Operating theatre unit

The precision and the reliability of the HVAC equipment in operating theatres and other critical rooms in hospitals remain unmatched in any other sector. And yet, the CleanLine series has been developed to meet these requirements. The CleanLine is used to optimize the indoor air temperature, the humidity level, and the ventilation to your individual settings in order to fulfill the legal regulations. A further emphasis is also placed on optimized energy consumption through the use of sophisticated integrated heat pump system controlled by an advanced control system. The CleanLine range is available with 5 unit sizes from 1.000 to 9.500 m³/h.





- Accurate indoor conditions
- **(** DIN 1946-4 & VDI 6022 compliant
- Tactory mounted controls
- lntegrated heat pump and steam option
- Compact, easy installation



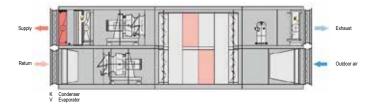


CleanLine

ETA ACCU - GREEN BUILDING SOLUTIONS

Accumulation energy recovery

The environment concerns, the rising cost of the energy and the new regulations lead to build increasingly insulated buildings. Then, the energy used to treat the fresh air becomes an important part of the energy consumption of the building. Euroclima has developed the ETA ACCU, a packaged unit equipped with a regenerative heat exchanger with two or more static storage matrixes. A damper system periodically alternates the airstreams. While one storage matrix is loaded with warm airstream - the other matrix is unloaded with cold airstream.







- > 90% sensible efficiency (EN 308)
- > 75% humidity efficiency (EN 308)
- Nackaged, compact, plug & play
- Optimized operation sequences
- Minimized maintenance



Accumulator with switching dampers



ETA POOL - INDOOR SWIMMING POOL SOLUTIONS

High de-humidification efficiency

Due to high humidity in in-door swimming pools, it is necessary to dehumidify the air in order to provide comfort to the occupants and protect the building and the furniture. The new ETA POOL series includes packaged units cutting edge controls and optionally high efficiency dehumidification heat pump system. The series is declined in two packaged product lines: ETA POOL SPA for small indoor pool (private houses, hotels...) from 1.000 to 5.200 m³/h and ETA POOL OLYMPIC for medium and large indoor swimming pools from 6.000 to 37.000 m³/h. From 6 to 215 kg/h dehumidification capacities. This new range is the result of a long experience in indoor pool applications, combined with the latest finest technologies available on the market.





- Optimized operation sequences
- High dehumification (VDI 2089)
- Packaged, compact, plug & play
- 1 Heat recovery up to 92% (EN 308)
- VDI 6022 options

up to 92 % efficiency





ETA POOL OLYMPIC ETA POOL SPA

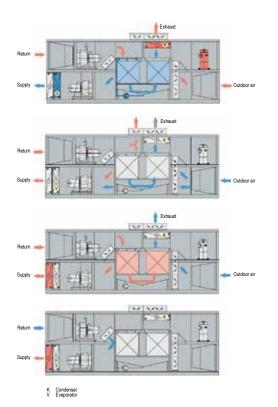
17

ETA PAC - ADIABATE COOLING SOLUTIONS

Efficient cooling solutions

The air conditioning equipment is one of the most important elements in data centers which require systems operating continuously 365 days a year, with high reliability, low running costs, easy maintenance, emergency management, and interconnectivity.

In addition to the ZHK range, which can be offered for customized solutions, Euroclima has developed the ETA PAC, a reliable and packaged unit equipped with double plate heat exchangers and indirect adiabatic cooling system. High efficiency filters, factory mounted control and integrated heat pump make this range the best choice for data centers, computer and LAN rooms, telecommunication rooms and laboratories. The range cover air volumes from 1.000 to 30.000 m³/h.





- High quality and reliability
- Indirect adiabatic & free cooling
- Heat recovery up to 75 % (EN 308)
- Integrated refrigeration (option)
- Packaged, compact, plug & play



Adiabatic cooling system



ZHK MARINE - MARINE & OFFSHORE SOLUTIONS

The best choice for ships & offshore

Marine and Offshore applications require air handling equipment's to be specially designed to stand to the expected extreme installation, working and service conditions. The ZHK Marine line has been developed to answer all specific issues related to these sectors: Robust unit construction, high dimensional flexibility, high components quality, Proper corrosion protections, adequate drain trays design, optimum system efficiency, and compliance to the most stringent marine & offshore standards and regulations. From containers ships to large cruise vessels and even up to luxury yachts, the ZHK Marine is your best choice.





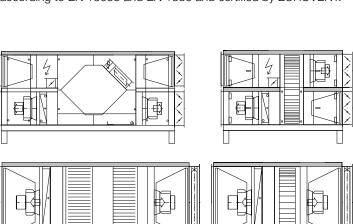
- High reliability, efficiency, unmatched flexibility
- Customized configurations and anti-corrosion protections
- Marine standards compliant
- Easy to install and maintain and long lasting lifetime
- Tactory tested and commissioned



ZHK NANO - THE COMPACT AIR HANDLING UNIT

ZHK NANO - Compact air handling unit

The new ZHK NANO has been designed to deliver fresh air into your building with a minimal footprint and in the most economical way. All chosen components have the best price/performance ratio and unit spaces are optimized respecting the current safety standards. The ZHK NANO includes energy efficient direct driven plug fans, fiber glass filters on return and fresh air streams, heat recovery device such as a counterflow plate heat exchanger or a heat wheel. The ZHK NANO is the best choice to provide high comfort to a wide variety of applications for buildings like offices, schools, hotels, airports, commercial centres, fitness centres, etc..The ZHK NANO is a compact unit available in sizes to cover air flow from 0,27 to 1,8 m³/s (1000 to 6500 m³/h). The unit performances and the mechanical casing characteristics have been tested by a third party laboratory according to EN 13053 and EN 1886 and certified by EUROVENT.





- Packaged, compact, plug & play
- 1 Integrated control
- High efficiency components
- Easy to install and maintain and long lasting lifetime
- Tactory tested



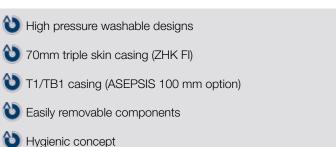
ASEPSIS / ZHK FI - FOOD AND BEVERAGE SOLUTIONS

ASEPSIS - free cold bridge design

For food production companies, hygiene and strict contamination control is a strategic issue. It has direct impact on the quality of the products, the health and the safety of the consumers and also the image of the brand. To meet high requirements of food production or storage cold rooms, Euroclima has developed the ASEPSIS unit, based on a free cold bridge casing, made of reinforced fibber glass and PVC panels, insulated with polystyrol material. The components are easily removable for cleaning processes, the unit floor can be inclined, with round corners and washing drains. The casing comply to T2/TB1 (T1/TB1 as option) thermal classes. Available up to 50.000 m³/h.









ZHK FI

ZHK FI - 70 mm tripe skin casing

An other unit construction designed for the food industry, is the ZHK FI featuring a 70mm thick triple skin casing. The third skin is made as one piece, fully welded in stainless steel, with rounded corners to allow regular high pressure washing processes. The floor in each section is inclined towards washing drains to the side. Internal components are protected against the corrosion according to the project specifications. As for Asepsis, all internal components can be easily removed without the use of special tools.

KITCHEN - EXHAUST SOLUTIONS

Kitchen exhaust air systems

Airborne aerosols having a particle size of 1 micron are created out of vapours and fine during Roasting, grilling and frying. These aerosols causes nuisance odours, and can also penetrate into the human lungs and cause health damage. Therefore, it is important to remove these substances from the work area of the kitchen, and to guarantee a harmless neutral exhaust air. Upon heating, cooking fats and oils altered by hydrolysis, pyrolysis and oxidation. These processes create substances such as glycerol's, free fatty acids, aldehydes, ketones, polymeric triglycerides, nitrosamines, polycyclic aromatic hydrocarbons, whereof some are classified as hazardous to health. The ZHK kitchen has been developed to clean and neutralize the air of kitchens before its exhausted to the environment. To filter the wide range of different aerosols and fission compounds, the unit is equipped with multiple stage of filtration. The range includes 11 standard unit sizes from 1.000 to 40.000 m³/h.





Aerosol panel filters x > 100µm

Electrostatic filters

 $0.01 \mu m > x > 10 \mu m$



G4 panel filters $10\mu m > x > 100\mu m$





Activated carbon filters $x < 0.01 \mu m$ (odours)



- 🐿 Compact, plug & play
- Protected against corrosion
- Easy to clean
- 🐿 Easy installation & maintenance
- Low sound levels



ZHK KITCHEN EXHAUST UNIT

EUROCLIMA FAN COIL UNITS

Fan coil units

Euroclima offers a wide range of standardized for residential and commercial buildings: Hotels, offices, schools, stores and hospitals. From simple cost effective products for comfort applications, to very special equipment's such as double skin fan coils. Euroclima can provide you the right fan coil units to meet your exact needs. Special products can be designed for your own projects with cutting edge components such as EC motors. All Euroclima fan coil units can be equipped with factory mounted controls.









Decorative units



Underfloor units



Ducted units



Double skin self-supporting units

REFERENCES



















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Euroclima product catalogues

